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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Siemens Corporation
Intellectual Property Department
170 Wood Avenue South
Iselin, NJ 08830

EXAMINER

TERMANINI, SAMIR

ART UNIT	PAPER NUMBER
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2178

MAIL DATE	DELIVERY MODE
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12/31/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/666,227

Applicant(s)

POERNER ET AL.

Examiner

Samir Termanini

Art Unit

2178

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 October 2007.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-40 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-40 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>N/A</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

BACKGROUND

1. This Non-Final Office Action is responsive to the following communications: Amendment and 37 CFR. 1.132 affidavits filed on 10/31/2007.

2. Claims 1-40 are pending in this case. The independent claims are : 1, 33-34, and 40.

RESPONSE TO AMENDMENT

3. The previous rejection of claims 1-40 made under 35 U.S.C. §103(a) are being maintained.

4. The Affidavit under 37 CFR 1.132 filed 10/31/2007 was carefully considered by the examiner.¹ However, it is insufficient to overcome the rejection of claims 1-40 based upon 35 U.S.C. §103(a) *Kodosky et al.* (U.S. PG-Pub. 2003/0184580) in view of *Leshem et al.* (U.S. Pat. No. 5,870,559) as set forth in the last Office action because, weighed against the evidence supporting the prima facie rejections, it fails to provide outweighing objective evidence. See MPEP § 716.

¹ All of the competent rebuttal evidence taken as a whole should be weighed against the evidence supporting the prima facie case. In re Piasecki, 745 F.2d 1468, 1472, 223 USPQ 785, 788 (Fed. Cir. 1984).

Objective evidence which must be factually supported by an appropriate affidavit or declaration to be of probative value includes evidence of unexpected results, commercial success, solution of a long-felt need, inoperability of the prior art, invention before the date of the reference, and allegations that the author(s) of the prior art derived the disclosed subject matter from the applicant. See, for example, *In re De Blauwe*, 736 F.2d 699, 705, 222 USPQ 191, 196 (Fed. Cir. 1984)

The evidence of the Affidavit consists substantially of statements expressing that: (1) one of ordinary skill in the art would not find the assertions of the Previous Office Action to be true; and (2) that one of ordinary skill art would not understand the cited references' disclosures.

The evidence of the Affidavit as not provided any objective evidence of secondary considerations such as unexpected results, commercial success, long-felt need, failure of others, copying by others, licensing, or skepticism of experts.

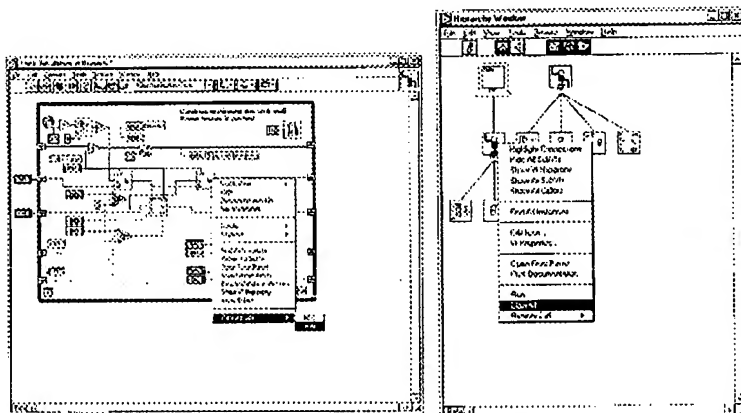
In view of the foregoing, when all of the evidence is considered, the totality of the rebuttal evidence of nonobviousness fails to outweigh the evidence of obviousness.

CLAIM REJECTIONS-35 U.S.C. § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

6. **Claims 1-40** are rejected under 35 U.S.C. 103(a) as being unpatentable over *Kodosky et al.* (U.S. PG-Pub. 2003/0184580, hereinafter *Kodosky*) in view of *Leshem et al.* (U.S. Pat. No. 5,870,559, hereinafter *Leshem*).

As to independent **claim 1**, *Kodosky* describe, in detail, a method for configuring HMI user screen navigation. For clarity, the Examiner is reproducing *Kodosky's* figures 20A and 24A below:



² "Factors that may be considered in determining level of ordinary skill in the art include (1) the educational level of the inventor; (2) type of problems encountered in the art; (3) prior art solutions to those problems; (4) rapidity with which innovations are made; (5) sophistication of the technology; and (6) educational level of active workers in the field." *Environmental Designs, Ltd. v. Union Oil Co.*, 713 F.2d 693, 696, 218 USPQ 865, 868 (Fed. Cir. 1983), cert. denied, 464 U.S. 1043 (1984).

II. Obviousness and Analysis of Claimed Differences

As to independent **claim 1**, *Kodosky* illustrate providing an HMI screen navigation editor to a user ("...The system may also include a system editor 732. The system editor may be used for creating a configuration diagram 712, also referred to as a system panel. In the present application, the terms 'system panel' and 'configuration diagram' are used interchangeably. The configuration diagram 712 may include a plurality of nodes or icons 714 which represent items 718 in a system, such as devices, machines, programs, applications, projects or other elements in the configuration diagram 712. The configuration diagram 712 may also illustrate the relationship between nodes using connections or links 716 as described herein....," para. [0148]); via the HMI screen navigation editor ("...automatically appear in the block diagram for further navigation or positioning by the user....," para. [0375]), enabling the user to create a collection comprising a linked hierarchically organized plurality of HMI screen nodes ("...enabling a user to more easily specify or create distributed systems and/or applications utilizing a configuration diagram....," para. [0001]); responsive to a detected collision between a parent node of said linked hierarchically organized plurality of HMI screen nodes and a first child node of a plurality of child nodes of said parent node ("...The "drag and drop" method may comprise the user selecting the first program icon with a pointing device (e.g., a mouse) and dragging the first program icon on the display to be on top of or proximate to the first device icon....," para. [0185]) automatically adjusting a nodes position ("...The connections between device icons that are automatically displayed may be displayed with an appearance indicating the type of

detected connection....," para. [0016]). Additionally, *Kodosky* clearly teaches rendering the collection to the user (e.g., *Kodosky's* figures 20A and 24A above)

Kodosky differs from claim 1 in two regards. First, *Kodosky* does not specifically teach that the adjustment of the position of a parent node is done in a recursive manner. Second, *Kodosky* is silent as to the adjustment being conducted for all of the parents' children.

Leshem teaches automatically recursively adjusting the position nodes in a HMI hierarchy editor. *Leshem's* Fig. 24 is illustrative of this editor (reproduced below):

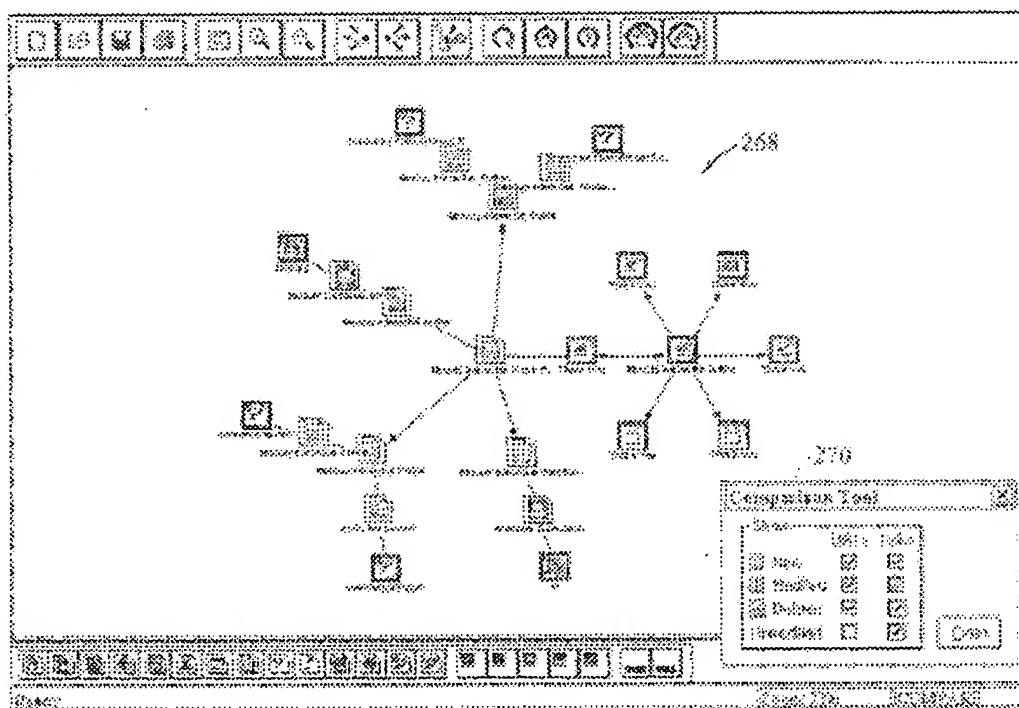


FIG. 21

Leshem disclose automatically recursively adjusting a position of a parent node with respect to its children:

A recursive layout method is then applied which uses the parent-child node relationships, as such relationships exist within the tree, to spatially position the nodes (represented as respective icons within the map) on the display screen such that children nodes are positioned around and connected to their respective immediate parents. (This layout method can also be used to display other types of hierarchical data structures, such as the tree structure of a conventional file system.) The result is a map which comprises a hierarchical arrangement of parent child node (icon) clusters in which parent-child relationships are immediately apparent.

(Column 2, at lines 35-46). It is important to point out that, "...This process is repeated for each parent node..."(Column 13, at lines 44-45) as it "recursively positions the nodes on the display screen" (Column 13, at lines 65-67).

It would have been obvious to one ordinary skill in the relevant field at the time the invention was made to recursively adjust a position of a parent node as taught in *Leshem* with the HMI editor of *Kodosky* because *Kodosky* expressly suggests that it is advantageously suitable to use its HMI editor with web based systems like *Leshem* ("...web service based interaction..." para. [0163]). Not only was the use of web service based interaction was expressly enumerated, it was a predictable solution and a person of ordinary skill in art would have had good reason to pursue it therefor.

As to dependent **claim 2**, which depends from claim 1, *Kodosky* further disclose(s): the method of claim 1, further comprising: receiving from the user a specification ("...configured ...," para. [0234]), of an HMI root screen node ("...402 at the top level ...," para. [0237]).

As to dependent **claim 3**, which depends from claim 1, *Kodosky* further disclose(s): the method of claim 1, further comprising: receiving from the user a

specification of an HMI child screen node ("...For example, the user may use a pointing device (e.g., a mouse), and may possibly use a "wiring tool" icon on the display, to connect a first device icon to a second device icon. This may cause a connection, e.g., a wire, to appear between the device icons to indicate a coupling relationship between the two (or more) device icons....," para. [0017]), the HMI child screen node a descendent of an HMI root screen node ("...This may cause a connection, e.g., a wire, to appear between the device icons to indicate a coupling relationship between the two (or more) device icons....," para. [0017]).

As to dependent **claims 4 and 20**, which depends from claim 1, *Kodosky* further disclose(s): the method of claim 1, further comprising: receiving from the user a specification of a relationship between two of the plurality of HMI screen nodes one being non familial ("...For example, the user can graphically modify (e.g., using a pointing device) the connection displayed between a first program and a second program so that the connection is displayed between the first program and a third program....," para. [0018]).

As to dependent **claims 5 and 7**, which depends from claim 1, *Kodosky* further disclose(s): the method of claim 1, further comprising: receiving from the user a specification of an organization or arrangement of the collection ("...In this embodiment, the configuration diagram is a specification of a desired system....," para. [0164]).

As to dependent **claims 6 and 18**, which depend from claim 1, *Kodosky* further disclose(s): the method of claim 1, further comprising: receiving from the user a

specification or attribute of a hierarchy of the collection ("...For example, as the user drags and drops program icons (e.g., from the configuration diagram) on to various device icons on the configuration diagram in step 208, the system may operate to display the updated relationship (e.g., hierarchy) of programs proximate to, e.g., underneath, the respective device icon to where they have been deployed...", para. [0186]).

As to dependent **claim 8**, *Kodosky* taught the limitations of claim 1 addressed above, *Kodosky* fails to clearly show receiving from the user a specification of a size the plurality of HMI screen nodes. *Leshem* discloses receiving from the user a specification of a size the plurality of HMI screen nodes ("...This is a recursive step which is applied on a node-by-node basis in order to determine (i) the display size of each node...", col. 13, lines 35-36).

It would have been obvious to one ordinary skill in the relevant field at the time the invention was made to adapt the node size *Kodosky* with the method of *Leshem* because one skilled in the art, having common knowledge and common sense, would reasonably be expected to draw the inference from *Leshem* that size is the limiting factor in displaying nodes of trees on displays with limited screen space.

As to dependent **claim 9**, which depends from claim 1, *Kodosky* further disclose(s): the method of claim 1, further comprising: zooming a rendition of the plurality of HMI screen nodes ("...zoom in and out on portions of a site map...", col. 2, lines 15-20).

As to dependent **claim 10**, *Kodosky* taught the limitations of claim 1 addressed above. *Kodosky* fails to clearly show panning a rendition of the plurality of HMI screen nodes.

Leshem is taught panning a rendition of the plurality of HMI screen nodes ("...To display the Pan Window 86, the user selects the "Pan Window" menu option from the VIEW menu while viewing a map. Within the Pan Window, the user is presented with a display of the entire map 30, with a dashed box 87 indicating the portion of the map that corresponds to the zoomed-in screen display. As the user navigates the site map (using the scrolling controls 40, 42 and/or other navigational controls), the dashed box automatically moves along the map to track the zoomed-in screen display...." col. 17, lines 29-46).

It would have been obvious to one ordinary skill in the relevant field at the time the invention was made to adapt the view for panning is in *Leshem*, with the nodes of *Kodosky* because one skilled in the art, having common knowledge and common sense, would reasonably be expected to draw the inference from *Leshem* that viewing an item larger than a screen would require panning, as taught in *Leshem*.

As to dependent **claim 11**, which depends from claim 1, *Kodosky* further disclose(s): (Original) the method of claim 1, further comprising: collapsing a rendition of the plurality of HMI screen nodes ("...every individual tree is preferably collapsible...", para. [0410]).

As to dependent **claim 12**, which depends from claim 1, *Kodosky* further disclose(s): the method of claim 1, further comprising: expanding a rendition of the plurality of HMI screen nodes ("...expanded to show one or more device icons comprised in the configuration diagram....," para. [0387]).

As to independent **claim 13**, *Kodosky* describe(s): the method of claim 1, further comprising: rotating a rendition of the plurality of HMI screen nodes (see the rotate buttons on top toolbar towards the right hand side, Fig. 6, *Kodosky*):

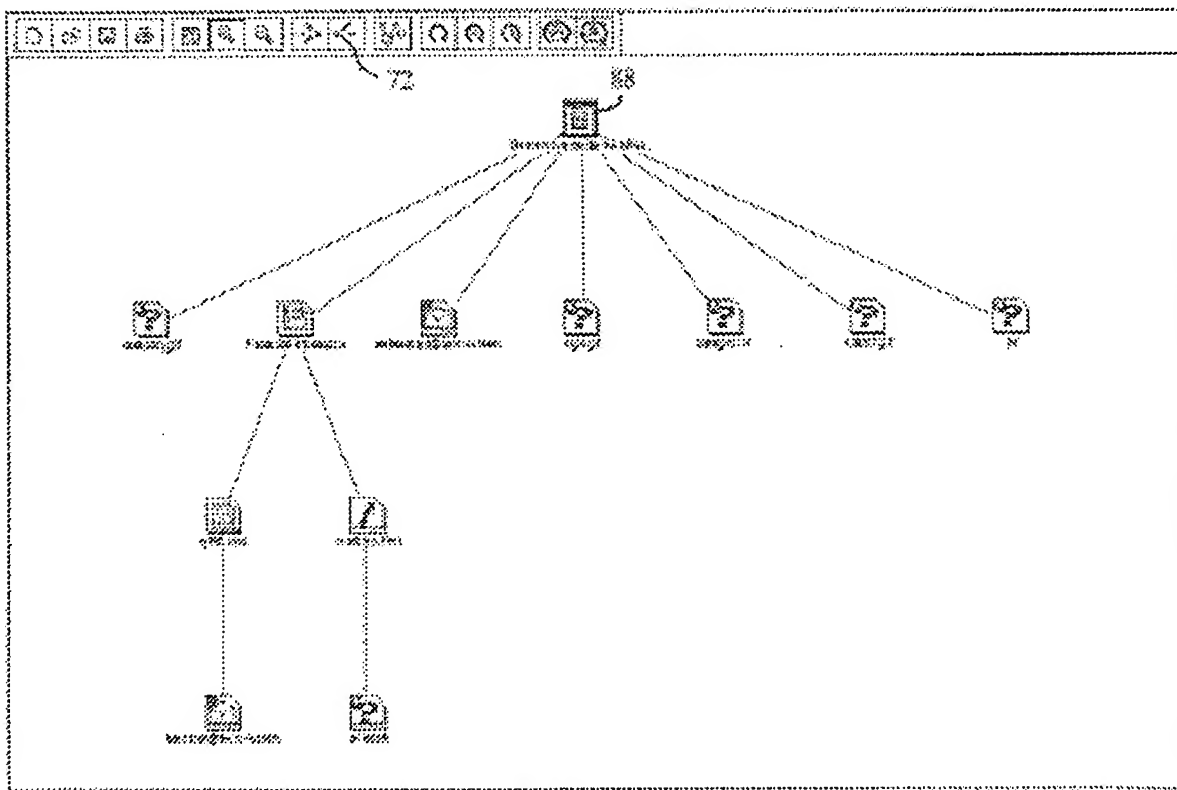


FIG. 6

As to dependent **claim 14**, which depends from claim 1, *Kodosky* further disclose(s): the method of claim 1, further comprising: rendering a portion ("...a portion

or all of a configuration diagram....," para. [0016])(emphasis added) of the plurality of HMI screen nodes ("...The configuration diagram may support various types of views, such as an entire system view, a subsystem view, a device view, a program view, etc. For example, the user can "drill down" in the configuration diagram to view a selected portion of the diagram, e.g., a selected subsystem of devices, a single device, the programs associated with a device, the data points associated with a device, the I/O channels associated with a device, etc....," para. [0015])(emphasis added).

As to dependent **claim 15**, which depends from claim 1, *Kodosky* further disclose(s): the method of claim 1, further comprising: enabling the user to revise the collection ("...In step 208 the user may graphically configure program deployment and/or invocation using the configuration diagram. The user may graphically configure program deployment and/or invocation by providing graphical user input to the configuration diagram to associate (e.g., drag and drop), icons with other icons, change connections between icons, etc....," para. [0175]).

As to dependent **claim 16**, which depends from claim 1, *Kodosky* further disclose(s): the method of claim 1, further comprising: enabling the user to revise at least one of the plurality of HMI screen nodes ("...The user may graphically configure ...," para. [0175]).

As to dependent **claim 17**, which depends from claim 1, *Kodosky* further disclose(s): the method of claim 1, further comprising: receiving a user specification of an attribute of an HMI screen node ("...The user can also draw links between program

icons to configure an invocation relationship between the respective programs....," para. [0316]).

As to dependent **claim 19**, which depends from claim 1, *Kodosky* further disclose(s): the method of claim 1, further comprising: receiving from the user a specification of a link between two HMI screen nodes ("...For example, the displayed connections may have an appearance that varies according to one or more of color, size or shading to indicate the type of connection between the devices...," para. [0010]).

As to dependent **claim 21**, which depends from claim 1, *Kodosky* further disclose(s): the method of claim 1, further comprising: rendering a link between two HMI screen nodes ("...The connection that is displayed between two device icons ...," para. [0159]);

As to dependent **claim 22**, *Kodosky* further disclose(s): the method of claim 1, further comprising: rendering a link from a first HMI screen node to a second HMI screen node ("...relationship view ...," para. [0176]), the second HMI screen node non-familial to the first HMI screen node ("...the configuration...," para. [0176]).

As to dependent **claims 23-24**, which depend from claim 1, *Kodosky* further disclose(s): the method of claim 1, further comprising: receiving and rendering a navigation control comprising at least one HMI screen link ("...In large distributed systems, the configuration diagram (or system panel) can include a number of different device icons. In one embodiment, the user can select a particular device icon and cause this device icon to be the only device icon displayed on the screen. Alternatively, the

user can select a device icon, causing the device icon to be displayed in a separate panel....," para. [0411]).

As to dependent **claims 25-32**, which depends from claim 1, *Kodosky* further disclose(s): the method of claim 1, further comprising: receiving and rendering from the user a specification of a navigation button comprising an HMI screen link "...In one embodiment, the user can select a particular device icon and cause this device icon to be the only device icon displayed on the screen....," para. [0411]), activatable via a user-specified soft key ("...while pressing a key on the keyboard (e.g., the ALT key)....," para. [0231]).

As to independent **claim 33**, this claim differs from claim 1 only in that it is directed to a product defined by the process of claim 1. Accordingly, this claim is rejected for the same reasons set forth in the treatment of claim 1, above.

As to independent **claim 34**, this claim differs from claim 1 only in that it is directed to an apparatus for carrying out the process of claim 1. Accordingly, this claim is rejected for the same reasons set forth in the treatment of claim 1, above.

As to dependent **claim 35**, *Kodosky* teaches the limitations of claim 1, addressed above, further comprising: receiving from the user, a user-drawn relationship indication line between two of the plurality of HMI screen nodes ("...The configuration diagram may include connections ("connection icons") such as lines, that are displayed between the various device icons to show the interrelationship or coupling between the respective devices....," para. [0204]).

As to dependent **claim 36**, *Kodosky* teaches the limitations of claim 1, addressed above, further comprising: automatically determining an arrangement of the collection based upon a user specified upper limit on inter-generational spacing ("...As a result, all of the children 48 are positioned approximately equidistant from the parent 44, and are spaced apart from one another by substantially equal angular increments. Similar graphical representations to that of FIG. 3 are illustrated in FIG. I by node clusters 52, 54 and 56. As illustrated by these three clusters in FIG. 1, both (i) the size of parent icon and (ii) the distance from the parent to its children are proportional to the number of immediate children of the parent," col. 11, lines 35-46).

As to dependent **claim 37**, *Kodosky* teaches the limitations of claim 1, addressed above, further comprising: receiving a user specification of an attribute of an HMI screen node, the attribute adapted to change a background color of a screen ("Background Color", pp. 6-7; see also "The background color change" p. 10-9).

As to dependents **claim 38-40**, *Kodosky* teaches the limitations of claim 1, addressed above, further comprising: rendering a navigation control comprising a button adapted to display a previously viewed screen in a sequence of screens or adapted to display a previously viewed screen in a sequence of screens in a sequence of screens ("...the configuration diagram (and/or the preview window) may support multiple levels of undo/redo, thereby allowing the user to "back out" changes that have been made....," para. [0187]).

RESPONSE TO ARGUMENTS

7. Applicant arguments, see pp. 1-10, with respect to the 35 U.S.C. §103 Rejections cited by the Examiner in the previous Office Action (Mail dated: 8/22/2007), have been fully considered but are not persuasive. Therefore, the rejection(s) have been maintained..

I. Applicant's arguments (see Remarks at p. 13) emphasize that lexicographic definitions have been provided in the Specification. However, the definitions provided, do not read away from the cited references.

II. Applicant's arguments (see Remarks at p. 14) emphasize the 10/31/2007 Affidavit is sufficient in overcoming the cited 103(a) Rejections. For the above mentioned reasons, the examiner find that it is not (see section RESPONSE TO AMENDMENT, above).

III. Applicant's arguments (see Remarks at p. 17) further aver:

Thus, even if there were proper evidence of obviousness presented in the Office Action (an assumption that is respectfully traversed), and even if there were a reasonable expectation of success in combining or modifying the applied portions of the references relied upon in the Office Action (another assumption that is respectfully traversed), no substantial evidence has been presented the applied portions of the references relied upon in the Office Action, as attempted to be modified and/or combined expressly or inherently teach every limitation of the independent claims, and consequently the Office Action fails to establish a *prima facie* case of obviousness.

The Examiner respectfully disagrees. As stated above, *inter alia*, It would have been obvious to one ordinary skill in the relevant field at the time the invention was made, to recursively adjust a position of a parent node as taught in *Leshem* with the HMI editor of *Kodosky* because *Kodosky* expressly suggests that it is advantageously suitable to use its HMI editor with web based systems like *Leshem* ("...web service based interaction..." para. [0163]). Not only was the use of web service based interaction was expressly enumerated, it was a predictable solution³ and a person of ordinary skill in art would have had good reason to pursue it therefor.⁴

Finally, in response to applicant's arguments, (includes those presented with the 10/31/2007 Affidavit) against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on

³ "[I]n *Sakraida v. AG Pro, Inc.*,... the Court derived from the precedents the conclusion that when a patent simply arranges old elements with each performing the same function it had been known to perform and yields no more than one would expect from such an arrangement, the combination is obvious." *KSR Int'l v. Teleflex Inc.*, 127 S.Ct. 1727, 82 USPQ2d at 1395-96 (internal quotation omitted).

⁴ As clarified in *KSR*, it's now apparent "obvious to try" may be an appropriate test in more situations than we previously contemplated. When there is motivation: "...to solve a problem and there are a finite number of identified, predictable solutions, a person of ordinary skill has good reason to pursue the known options within his or her technical grasp. If this leads to anticipated success, it is likely the product not of innovation but of ordinary skill and common sense. In that instance the fact that a combination was obvious to try might show that it was obvious under §103," *KSR Int'l v. Teleflex Inc.*, 127 S. Ct. 1727 at 1742, 82 USPQ2d at 1397 (2007).

combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

CONCLUSION

8. All prior art made of record in this Office Action or as cited on form PTO-892 notwithstanding being relied upon, is considered pertinent to applicant's disclosure. Therefore, Applicant is required under 37 CFR §1.111(c) to consider these references fully when responding to this Office Action.

9. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Samir Termanini at telephone number is (571) 270-1047. The Examiner can normally be reached from 9 A.M. to 6 P.M., Monday through Friday.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Stephen S. Hong can be reached on (571) 272-4124. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

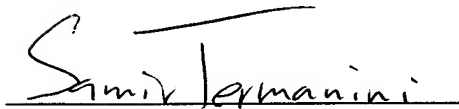
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STEPHEN HONG
SUPERVISORY PATENT EXAMINER



Samir Termanini
Patent Examiner
Art Unit 2178